

INTERIOR LIVE OAK (*Quercus wislizenii*)



Picture from: Murman Slide Collection, Library,
Univ. of California at Los Angeles

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Interior live oak (*Quercus wislizenii*) occurs on mountain slopes below 5000 feet and valleys from Siskiyou County, Calif., southward through the Coast Ranges, the Sacramento Valley, and the Sierra foothills to northern Baja. The tree forms are often in woodlands containing other species of oak and digger pine (*Pinus sabiniana*). The scrub varieties are generally present in chaparral. The genus *Quercus*, a member of the Beech Family or Fagaceae, is divided into two large groups, white oaks and black oaks. Interior live oak belongs to the latter. In all, there are about 450 species of oaks

which are widely distributed in the northern hemisphere and into the mountains of the tropics.

Interior live oak is an evergreen tree from 30 to 70 feet tall, with rounded top and smooth bark which becomes furrowed with age. The leaves are mostly oblong, varying from elliptic to lanceolate in shape, with blades from $\frac{3}{4}$ to 2 inches long and petioles about $\frac{1}{4}$ inch long. They are firm, with either smooth or spiny edges, and glabrous and shining both above and beneath. The flowers are small, without petals, green or yellowish, and unisexual, with the staminate and pistillate on the same plant. The acorns are oblong, ovate, sharp pointed, from $\frac{3}{4}$ inch to $1\frac{1}{4}$ inches long, $\frac{1}{4}$ to $\frac{1}{2}$ inch thick, and with scaly cups. Like all black oaks, they mature during the second autumn.

Interior live oak control is wanted most on rangelands; here, where perennial grasses and clovers are planted, oak brush is detrimental. Then again, we do not want live oak trees or brush growing beneath power lines, on rights-of-way, or close to houses where it creates a fire hazard. Where water is not adequate, more water can be made available by clearing or partially clearing watersheds. Since live oaks constitute important members of the watershed, their removal can be highly beneficial, as water not used by the trees becomes available to the people who live in the area.

There are several methods of killing interior live oak trees or brush. One practical method for killing trees is to make cuts closely spaced around the bases of the trunks and to apply an amine form of 2,4-D to the cuts. Winter is the best time to make such applications. Smaller stemmed trees and brush can be sprayed basally using brush killer mixtures of 2,4-D and 2,4,5-T alone, in oil. The basal parts of the stems must be thoroughly soaked to obtain results. The most effective time to make these treatments is early spring.

It is most desirable to burn areas prior to killing the live oak. The sprouts can then be killed by repeated applications of brush killer or silvex; the latter is often more effective. Current evidence suggests that picloram added to other phenoxy's often gives a better kill than other methods. Aircraft applications have been effective in giving top kills, but results in poor root kills. Another approach has been to place 2 ounces of 25% fenuron pellets at the base of each group of sprouts in the winter; under this method, killing will take place slowly and may continue for 2 to 4 years.